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Examining the Research on Humor: Being Cautious About Our Conclusions ©1999

By Steven M. Sultanoff, Ph.D.

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The State of the Research

In July (1999), I attended the International Society for Humor Studies (ISHS) Conference in Oakland, California. While I attended many of the presentations offered, one in particular impacted me as a "humor professional."

During the last general session of the conference, a well-respected researcher reviewed the research on the health benefits of humor. While I realize that the research on the health benefits of humor is limited, I was surprised to learn that it is very limited in both *quantity* and *quality*.

Induction, Deduction, or Seduction

As humor professionals we often report that, according to *research*...

"Children laugh 400 times a day while adults laugh only 15 times."

"Endorphins, the body's natural pain killers, are released during deep heartfelt laughter."

"IgA (an antibody), killer T-cells, and tolerance to pain are increased with laughter while serum cortisol (a hormone secreted when one is under stress) is decreased with laughter."

Most of us are familiar with these "conclusions," yet how many of us have actually examined the original research? After 14 years in the field of therapeutic humor, I must shamefully admit that I have not! I assume that I am not alone and that most of us have not reviewed the original research.

If we have not examined the research, from where have we drawn our conclusions about the health benefits of humor? For me, this data comes primarily from health newsletters, from the media such as popular magazine articles, and from presentations by other humor professionals. Imagine relying on the media and word of mouth to accurately report research!

At a health conference many years ago, one researcher suggested that *scientific* investigation is based on

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induction, deduction, or seduction! Seduction meaning accepting conclusions based on beliefs rather than data. I believe it is true, and therefore, it *is* true.

Accurate Conclusions or Faulty Assumptions

Let's examine the "research" conclusions listed above. Have any of us seen any documented research that supports the conclusion that children laugh 300-400 times a day, while adults laugh only about 15 times? I cannot find it published in the research literature, and no one who I have asked has seen it either. I have been citing this "data" for years, and even *believe* that I read it in a research journal years ago. Now, I wonder if I really read it. Have I been the victim of my own seduction? Has this commonly reported conclusion evolved out of research or is it a "humor legend?"

When making presentations to groups I frequently ask, "How many of you have heard that endorphins are secreted during deep heartfelt laughter?" At least three-fourths of the audience report that they have heard about this "data." However, I have found no research that supports this conclusion either. Is it true or not? Well, it may be true, but no published research supports it! This also appears to be a humor legend.

As for the increase in IgA, killer T-cells, and tolerance to pain, as well as, the

decrease in serum cortisol---yes, there is published research to support these findings. However, this research is limited in several ways. First, there are very few experimental studies (about 15), and these studies show conflicting results. Many appear to have design flaws such as lacking adequate control or comparison groups.

Laughter clearly effects our physiology. We know heart rate increases, blood flow increases, muscles convulse, and probably hundreds of biochemical changes occur. What's not clear is the exact nature of the biochemical changes. Do they influence health and wellness? Is it "laughter" that actually *causes* these changes reported in the research, or are the biochemical changes the result of another factor such as the increase in breathing during laughter. The data is unclear.


We *know* humor and laughter are valuable, but we do not have sufficient published "*research*" to support the conclusion that humor and laughter promote health and wellness. We feel good when we experience humor. Humor can act as a "social lubricant" by decreasing interpersonal tension and offering perspective on life's stressors. Humor practitioners report that humor changes emotional states. I *believe* that humor is emotionally, cognitively, and biochemically healing, but I am also aware that the research to support my belief is insufficient.

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What then are the conclusions about the health benefits of humor? There is some evidence that "laughter" *may* be healthful. "Laughter" *may* create physiological changes that help maintain health. Some potential health benefits of "laughter" *may* include increased IgA, increased killer T-cells, increased tolerance to pain, and lower serum cortisol.

In a pilot study (limited to 24 participants) recently reported in the Mind/Body Health Newsletter (Volume 8, Number 2, 1999), researchers found that heart attack survivors who experience 30 minutes of humor daily are less likely to experience second heart attacks, required lower doses of medication, and had lower blood pressure. However, before we report this data, it is important to be aware of its limitations. There were only 12 patients in the experimental group, and in research this is a very small number of subjects. This study suggests that there might be a health benefit of humor related to heart disease, but more importantly it indicates that there is a need for further research.

As therapeutic humor professionals and as AATH members it is our responsibility to disseminate accurate research findings on the health benefits of humor/laughter. When sharing research results, I encourage all of us to carefully examine the conclusions and indicate that further research is desperately needed. It is one thing to "know" in our hearts and in our

experience that humor is healthy, and it is quite another to support that conclusion with research. 

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